

## EDITORIAL.

IN LOOKING somewhat carefully into the methods of botanical instruction prevalent in our colleges it seems to us that there is a dangerous tendency that demands consideration. We do not refer to those colleges in which botany receives but little attention, but to those in which there is an attempt to develop it in a full and modern way. In the recoil from the old time methods, the college has gone to the other extreme and seeks to become a place of research, a sort of undergraduate university. The teachers who are fit to teach have either just come from great botanical centers where research is in the very air, or they are intensely occupied with their own investigations. The consequence is that raw young men and women, after a year or two of the study of "types," are assigned original problems, and their uncertain results, with more or less revision on the part of the instructor, are published in some periodical or bulletin. These callow productions have come upon us in swarms and they are richer in annoyance than in information. We do not blame the young authors in the least, but we do blame instructors for encouraging poorly prepared students to undertake original investigation. The science of botany is an enormous thing, with a long history and a rapidly increasing volume, and a year or two of preparation cannot fit any one to conduct a creditable research in any part of it. The different departments of it are so interdependent that it needs long training to bring the perspective and the grasp that make any independent investigation profitable. To interpret, and to fit results upon the great body of accumulated knowledge is not within the capacity of an undergraduate. We are perfectly aware that many ambitious students desire a "problem" almost as soon as they enter the laboratory, but it should no more be granted to them than solid food to a sucking babe. We are pleading for a longer devotion to the elements of botany in all their wide range, a patient preparation, year after year, of a suitable background upon which individual work may presently be projected, an abolition of independent undergraduate investigation. If the instructor be carrying on investigations in which students may be of service it is profitable and inspiring to allow such service, but this is training, not original research. Those students are fortunate who are held back from precocious research and publication, and those are to be pitied who are spurred into doing that for which they are in no way prepared.